



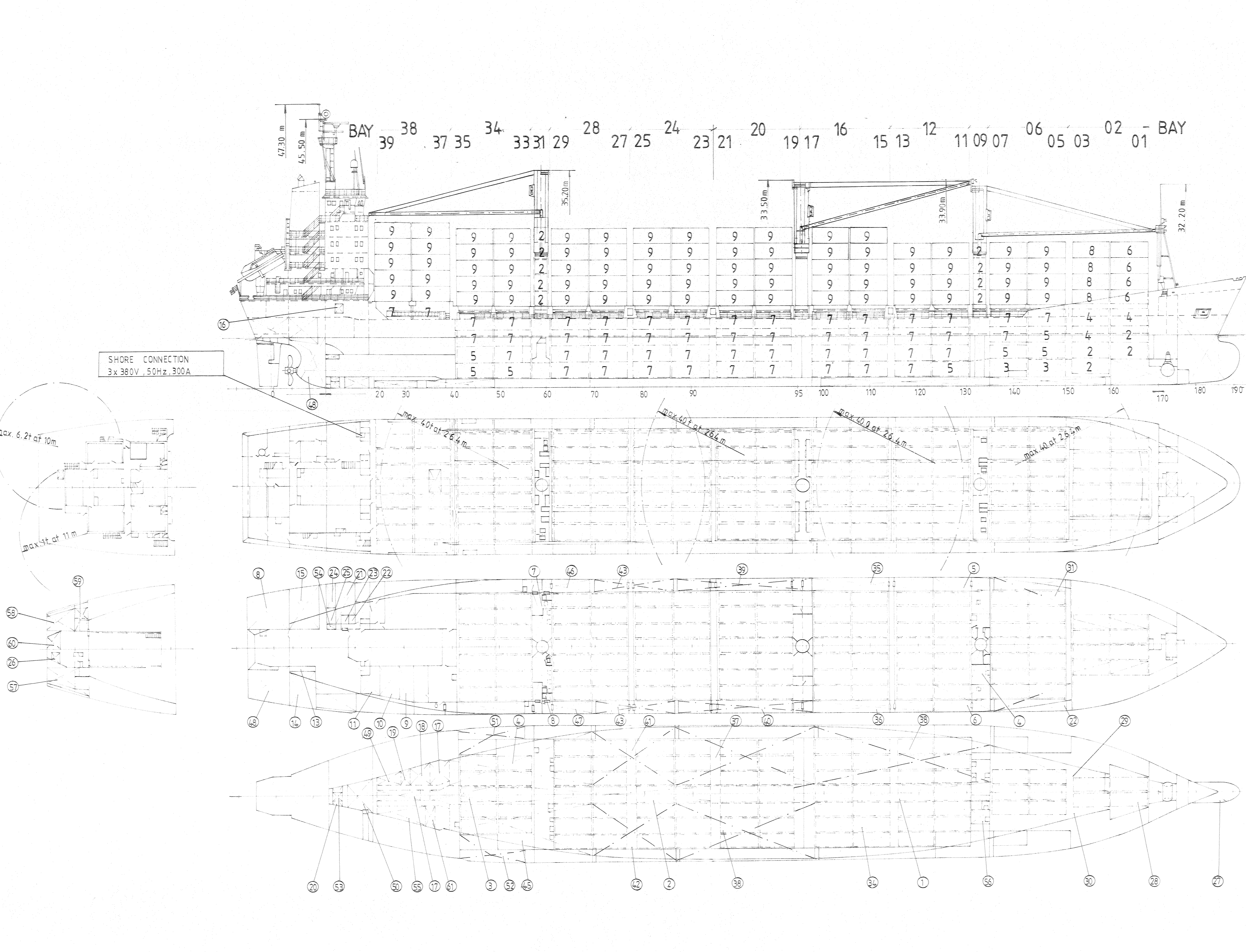
EQUIPMENT	TYPES	MANUFACTURE	SUPPLIER
RADAR (2 OFF)	ATLAS 9600 ARPA/S	STN/ATLAS	STN/ATLAS
RADAR TRANSPONDER	ATLAS 9600 TM/X	ELEKTRONIK	ELEKTRONIK
SPEED LOG	DEBEG 5900	DEBEG	STN/ATLAS
GPS SATELLITE NAVIGATION SYSTEM	JLN 203 D	JRC	ISSING
NAVIGATION ECHO SOUNDER	RS 5400	SHIPMATE	SHIPMATE
NAVTEX RECEIVER	LAZ 50 AT	ELAC	SPERRY
EPFRB	DEBEG 2800	DEBEG	ELEKTRONIK
2 VHF MARINE RADIO SYSTEM	KANNAD 406 FH	STN	STN/ATLAS
1 VHF MARINE RADIO SYSTEM	DEBEG 6930	DEBEG	STN/ATLAS
WEATHER FACSIMILE RECEIVER	DEBEG 6348	DEBEG	STN/ATLAS
SATELLITE COMMUNIC. SYST. Std A	FAX 208/A	FURUNO	STN/ATLAS
SATELLITE COMMUNIC. SYST. Std C	DEBEG 3240	DEBEG	STN/ATLAS
WALKIE-TALKIES (3 OFF)	DEBEG 3280	DEBEG	STN/ATLAS
GYRO COMPAS SYSTEM	DEBEG 6701	DEBEG	STN/ATLAS
CONVENTIONAL AUTO-PILOT	Std 14	ANSCHUTZ	ANSCHUTZ
RUDDER STEERING	NAUTOPILOT	ANSCHUTZ	ANSCHUTZ
MAGNETIC COMPASS	REFLECTA 2 FIBRELINE	C. PLATH	ANSCHUTZ
RUDDER ANGLE INDICATOR SYSTEM	83 S 51 P	ANSCHUTZ	ANSCHUTZ
WINDOW WIPPER SYSTEM	W. G. SCHULZ	W. G. SCHULZ	W. G. SCHULZ
SOUND SIGNALLING SYSTEM	ZOELLNER	ZOELLNER	ZOELLNER
MANUAL SIGNALLING SEARCHLIGHT	HML 35/24	WISKA	WISKA
RADIO STATION	DEBEG 3100	DEBEG	STN/ATLAS

SAFETY EQUIPMENT	
1 FREE FALL LIFE SAVING SYSTEM, LIFE BOAT TYPE FFB 7.40 FOR 25 PERSONS - LENGTH 7.40 m, BREADTH 2.65 m, HEIGHT 1.56 m	
LIFERAFTS:	1 AUTOMATICALLY INFLATABLE LIFERAFT FOR 25 PERSONS WITH WATER PRESSURE RELEASE MADE BY DSB 1 AUTOMATICALLY INFLATABLE LIFERAFT FOR 25 PERSONS WITH WATER PRESSURE RELEASE AND LAUNCHING ARRANGEMENT MADE BY DSB 1 INFLATABLE LIFERAFT FOR 6 PERSONS MADE BY DSB 1 PNEUMATIC RESCUE BOAT DSB TYPE 420 IRB FOR 6 PERSONS
FIRE FIGHTING SYSTEMS:	ENGINE ROOM, CARGO HOLDS - CO ₂ SYSTEMS WEATHER DECKS - FIRE WATER SYSTEM HOLD No 1 - SPRINKLING WATER SYSTEM

SPECIAL EQUIPMENT	
BOW THRUSTER:	MANUFACTURER ZAMECH ABB LTD - ELBLAG POLAND, LIAAEN LICENCE, TYPE TT 60/47-170 CAP. 590 kW, THRUST 90 kN RATING 1000 1/min
REEFER PLUGS:	100 PLUG SOCKETS FOR REEFER CONT. 3x380 V, 50 Hz, 16 kW - 72 PCS ON HATCH C. 2 - 8, 28 PCS ON HOLDS No 2 - 3
EVAPORATORS:	ALFA - LAVAL SERCK, CAPACITY 20 t / 24 h
HATCH COVERS:	SEVEN HATCHES FIXED ON THE MAIN DECK, OPENING SIZE HATCH 1 - 12.48x10.40 m, HATCH 2 - 7 12.48x18.00 m UNIFORM LOAD - 2.0 t/m ²
HATCH COVERS WEIGHTS:	No 1 HATCH 1.1 14.0 t, No 1 HATCH 1.2 15.0 t, No 2-8 HATCH PS OR SB 15.0 t, No 2 HATCH C 24.0 t
HOLDS VENTILATION:	REVERSIBLE AXIAL-FLOW FANS MAKE WITT & SOHN WITH AEG THREE-PHASE CURRENT MOTORS FOR CARGO HOLD 1 EXPLOSION PROOF - 2 PCS FOR CARGO HOLD 2 - 3 PCS FOR CARGO HOLD 3 - 4 PCS FOR CARGO HOLD 4 - 2 PCS
AIR CONDITION PLANT:	TWO-PIPE AIR CONDIT. SYSTEM, KLIMOR - GDYNIA, POLAND
EQUIPMENT FOR:	SUEZ CANAL, PANAMA CANAL

MAIN MACHINERY	
MAIN MACHINERY:	1 TWO-STROKE CROSS-HEAD ENGINES MAN-B&W - LICENCE H. CEGIELSKI - POZNAN, POLAND TYPE 6LS0NC RATING 6930 kW AT 140 1/min
AUXILIARY ENGINES:	3 FOUR-STROKE ENGINES, SLUZER-LICENCE H. CEGIELSKI, TYPE 6 AL 20/RD RATING 532 kW AT 1000 1/min
EMERGENCY DIESEL:	1 FOUR-STROKE ENGINE, DEMP / MAN, TYPE D 2866 TE/UCM 274 G, 145 kVA AT 1500 1/min, 380 V, 50 Hz
GENERATORS:	3 THREE-PHASE ALTERNATORS, DOLMEL-WROCLAW, POLAND TYPE GNB 136 k/04, 630 kVA AT 1000 1/min, 400 V, 50 Hz
STEERING GEAR:	1 SHAFT GENERATOR, DOLMEL-WROCLAW TYPE GNB 136 b/01 1250 kVA, 400 V, 50 Hz
PROPELLER:	1 ELECTRIC HYDRAULIC STEERING GEAR HYDROSTER-GDANSK POLAND, TYPE MS 320-11, RATING 320 kNm
	1 CONTROLLABLE PITCH PROPELLER, ZAMECH ABB LTD-ELBLAG POLAND, MAIN PITCH 4433 mm, AREA RATIO 0.925 DIAMETER 5200 mm, RIGHT-HAND ROTATION

BOILERS PLANT	
PLANT:	MAKE GDANSK SHIPYARD FOR HEAVY FUEL OIL TANKHEATING PREHEATERS, AIR COND. SYSTEM AND ALL HEAT CONSUMERS REQUIRED.
AUXILIARY BOILER:	1 WATER TUBE BOILER, VERTICAL, CAPACITY 2.5 t/h, 7 bar
OIL FIRING EQUIPMENT:	FULLY AUTOMATIC PRESSURE JET ATOMIZER MAKE SAAKE
EXHAUST GAS BOILER:	1 WATER TUBE TYPE, CAPACITY 1.0 t/h, 7 bar



DECK MACHINERY	
WINDLASSES:	2 COMBINED WINDLASS AND AUTOMATIC MOORING WINCHES 80 kN TOWIMOR-TORUN POLAND, TYPE C8 + K 56, CABLE LIFTER FOR 56 mm K 3 STUD LINK CHAIN CABLE MOORING SECTION FOR 60 mm DIA ROPE, NOMINAL PULL 80 kN, SPEED 63/31/14/1.9 m/min
	2 AUTOMATIC MOORING WINCHES WITH WARPING HEAD FOR 60 mm DIA ROPE TOWIMOR-TORUN POLAND, NOMINAL PULL 80 kN SPEED 63/31/14/1.9 m/min StB TYPE C8 AP 223, Port side TYPE C8 AL 223
	2 AUTOMATIC MOORING WINCHES FOR 60 mm DIA ROPE TOWIMOR-TORUN POLAND, TYPE C8 AP 213, NOMINAL PULL 80 kN, SPEED 63/31/14/1.9 m/min
CRANES:	3 DECK CRANES, HAGGLUNDS TYPE GL4026, 4 2S RADIUS FROM 2.4 m TO 26.4 m, LIFTING CAPACITY 40 t
	1 LIFE BOAT, RAFTS AND STORING CRANE, DAVIT INTERNAT. TYPE C-P.R.S.G. 8/2.85-10, RADIUS FROM 2.65 m TO 10 m LIFTING CAPACITY 6.2 t
	1 PURPOSE CRANE, DAVIT INTERNAT. TYPE C-S-10/2.5-11 RADIUS FROM 2.5 m TO 11.0 m, LIFTING CAPACITY 1 t

HATCH No	Main deck	8	7	5	5	4	3	2	1	TOTAL
TIER	BAY 38	34	28	24	20	16	12	08	04	40
90	37	35	33	31	29	27	25	23	21	19
88	35	33	31	29	27	25	23	21	19	17
86	33	31	29	27	25	23	21	19	17	15
84	31	29	27	25	23	21	19	17	15	13
82	29	27	25	23	21	19	17	15	13	11
80	27	25	23	21	19	17	15	13	11	9
78	25	23	21	19	17	15	13	11	9	7
76	23	21	19	17	15	13	11	9	7	5
74	21	19	17	15	13	11	9	7	5	3
72	19	17	15	13	11	9	7	5	3	1
70	17	15	13	11	9	7	5	3	1	
68	15	13	11	9	7	5	3	1		
66	13	11	9	7	5	3	1			
64	11	9	7	5	3	1				
62	9	7	5	3	1					
60	7	5	3	1						
58	5	3	1							
56	3	1								
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HEAVY FUEL OIL = 0.95 t/m3				
No	TANKS	FRAME	VOLUME m3	CAPACITY t
1.	No 6 DB	100-135	118.8	112.9
2.	No 7 DB	49-100	230.7	219.2
3.	No 8 DB	35-49	43.0	40.9
4.	No 22	131-135	140.0	133.0
5.	No 23 PS	123-135	180.7	171.7
6.	No 23 SB	123-135	172.4	163.9
7.	No 24 PS	177-451	179.5	170.5
8.	No 24 SB	57-61	172.3	163.7
9.	No 29	29-32	29.9	28.4
10.	No 30	25-29	39.0	37.0
11.	No 31	21-25	27.6	26.2
TOTAL			1332.7	1266.2